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RECONCILIATION AND THE SIZE OF THE BUDGET

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#### ABSTRACT

Reconciliation has become a regular feature of the congressional budget process. We address the question of whether or under what conditions the budget process with reconciliation (modeled as selection of the size of the budget first and its division second) produces smaller budgets than a piecemeal appropriations process in which the size of the budget is determined residually. The theoretical result is that reconciliation sometimes results in relatively large budgets. A testable implication of the theory is that given a choice of how stringently reconciliation is to be employed, congressmen will jointly consider preferences and the expected outcomes under the available institutional arrangements and select the arrangement (usually a rule) that yields the most favorable outcome. Empirical results from the budget process in the House from 1980-83 are generally supportive of the hypothesis of rational choice of institutional arrangements which is derived from the theory.

## RECONCILIATION AND THE SIZE OF THE BUDGET

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In 1974 Congress adopted a new process for making budgeting decisions. Instead of considering appropriations requests one at a time and letting the overall level of spending be determined residually, the 1974 Budget and Impoundment Control Act (PL 93-344) required Congress to enact a budget resolution that set overall spending levels and then instructed authorizations and appropriations committees to keep within those levels when considering separate appropriations bills. A key purpose of the Act was to encourage Congress to consider explicitly questions of fiscal policy and to make tradeoffs when setting spending levels for individual programs.

Many of the proponents of the Act believed that the budget process would lead to a lower level of spending than would otherwise occur. Their argument was that each member of Congress has programs in which he or she is especially interested and will consequently attempt to expand through generous appropriations. But the sequential expansion of the many such programs ultimately leads to an overall level of spending that is higher than a majority would choose if the size of the budget were voted upon initially and directly. In other words, there was a widespread belief that everyone (or at least a

majority of both houses) would prefer a lower budget level and correspondingly lower funding levels for individual programs than that which results from the piecemeal nature of pre-1974 budgetary politics. This reasoning enticed fiscal conservatives to crusade for budgetary reforms, and with the assistance of liberals who were increasingly disillusioned with President Nixon's aggressive use of impoundments, reforms were passed almost unanimously.<sup>1</sup>

While the precise reasons for the overwhelming support for the Act can be disputed (Schick, 1980), there is no doubt that the debate surrounding its passage contains numerous references to its desirability as a tool to control budgetary growth (Fisher, 1985). But recent events, such as the dramatic increase in deficits and a persistent inability or unwillingness of either the Congress or the president to take correspondingly strong action, provide a basis for questioning the effectiveness of the 1974 budget reforms. There is no strong evidence for the proposition that the Act has had the effect of controlling spending. Rather, there is merely the argument that without the 1974 Act, things would have been worse; levels of spending would have been higher and deficits larger.

But determining whether the new budget process has achieved the goal of controlling expenditures, relative to an appropriate alternative such as the old appropriations process, is a difficult task. As Shepsle (1984) notes, "the appropriate experiments cannot be run."<sup>2</sup> Furthermore, while we cannot experiment with Congress, Congress nevertheless can and does in effect experiment with itself

annually by choosing which of a variety of budgetary institutional arrangements to employ. Our approach to these twin complexities is to substitute theory for our inability to experiment, and then to use the annual congressional choices of institutional arrangements as sources of data suitable for testing our theory. We develop and analyze two models — the new budget process with reconciliation and the old piecemeal appropriations process -- to provide a theoretical answer to the question of whether and when the new budget process results in smaller budgets than the old appropriations process. Then we test the theory by observing the House's annual choice of institutional arrangements, interpreting roll call votes on procedural questions as revealed preferences for or against a budget process with strict reconciliation.

#### RECONCILIATION IN THE CONGRESSIONAL BUDGET PROCESS

Fiscal conservatives point with pride to the 1981 budget and reconciliation process in which a number of spending programs were cut significantly. Participants suggest that this feat would have been impossible without the Budget Act (Miller and Range, 1983), and observers argue that it would have been exceedingly unlikely without the transformation of reconciliation from a narrowly applied second-stage process, which it was initially intended to be, into a broadly applied first-stage process (Schick, 1981). Although initially the successful use of the reconciliation mechanism depended on an extraordinary singleness of purpose by the members of a bipartisan

coalition, congressional budgeting since Reagan's 1981 "blitz" (LeLoup, 1982) suggests that reconciliation, in one form or another, will always be an institutional option during congressional budgeting. What, then, are its essential ingredients, and how can the process be modeled?

Reconciliation is a multi-stage process. First, the House and Senate pass a budget resolution that includes instructions to committees to report changes in laws within their jurisdictions. Typically, the stated purpose of the reconciliation instructions is to reduce the size of the budget, although this need not be the case (Ellwood, 1984). Second, the committees to which the instructions are directed respond with changes that comply with the reconciliation targets. Although reconciliation instructions may include specific itemized suggestions for changes in programs, committees need not comply with specific requests, provided that the changes they do make comply with the reconciliation instructions. Committees then report their changes to the Budget Committee, which assembles them in the form of an omnibus reconciliation bill. Next, the reconciliation bill is reported to the floor where debate and amendments are typically constrained by a special rule in the House or a unanimous consent agreement in the Senate. Finally, differences in House and Senate reconciliation bills must be resolved in a conference committee before the bill is enrolled and sent to the president.

The progression of actual uses of reconciliation has been steady, if unanticipated. Reconciliation was not used at all until 1977 when

a minor and somewhat idiosyncratic attempt in the Senate failed, and it was not attempted again until 1979 when the Senate successfully included instructions in the second resolution calling for \$2 billion in savings. Although reconciliation was not formally part of the House's version of the second resolution, Budget Committee Chairman Giaimo's proposal which did pass was identical to the Senate version minus explicit reconciliation provisions. In the end, House committees behaved as if the resolution contained instructions. Next, in 1980, reconciliation was incorporated into the Senate's and the House's first resolutions,<sup>3</sup> and compliance with the instructions was generally good: \$8.2 billion in savings were achieved, from an initial reconciliation goal of \$10.6 billion.

If there is a major mutation in the otherwise gradual evolution of the process, it occurred in 1981. As in 1980, reconciliation was incorporated in the first budget resolution, but several additional features of the 1981 process were unprecedented. First, instructions pertained to legislation enacted in previous sessions; the prior scope of reconciliation was restricted to legislation to be enacted between the first and second resolutions of the current session. Second, changes were ordered in substantive legislation for various existing programs; previously only appropriations levels for such programs were affected. And third, committees were instructed to take positive action on new issues that otherwise may not have been considered.<sup>4</sup> Reactions to such changes ranged from passionate (but ineffective) objections by politicians to well-reasoned (but incorrect) predictions

by political scientists, the common element of which was that 1981 was an anomalous year. For example, Richard Bolling, Chairman of the House Rules Committee, accused the president of "attempting to tyrannize a whole Congress, a whole people. . ." and argued that reconciliation was "an attempt to destroy the budget process for narrow partisan gain in support of a radical, doubtful program".<sup>5</sup> And an early study of reconciliation concluded that "expanded reconciliation will not be a budget process for all seasons" (Schick, 1981, p. 43).

In contrast to the immediate reactions to reconciliation, hindsight now permits us to observe that 1981 was neither the sole season for reconciliation nor an especially peculiar one. Not only was it used before 1981, but more importantly reconciliation instructions have been included in the first resolution ever since 1981. Furthermore, although net savings from and committee compliance with reconciliation instructions have waxed and waned since 1981, an additional feature was added to the 1982 through 1985 budget resolutions that potentially makes the effect of reconciliation more certain than it was in 1981 -- language making the first resolution binding in the increasingly likely event that no second resolution is passed. In short, if reconciliation is not here to stay, at least it has been employed in a sufficient number of budget cycles to warrant reconsideration.

## A THEORY OF CONGRESSIONAL BUDGETING

We have only one history, of course, and in that history Congress passed the 1974 Budget Act and came to rely on the availability if not the consistent application of reconciliation. The practical effect of rigidly applied reconciliation is to set a budget ceiling during the first stage of the process. While perhaps not subscribed to universally, such a view of reconciliation is increasingly orthodox.<sup>6</sup> Ellwood (1984), for example, writes that

by grouping a series of reductions into a single bill, [the reconciliation process] gives greater power to the aggregates (the "budget line"). The political debate can be shifted from the parts to the whole, particularly when the party leadership (at least in the House) obtains a limited or closed rule for the bill. (p. 377)

Since we are interested in the relative budget sizes likely to result from two different institutional arrangements but are unable to experiment with Congress, we need a convincing theory of budgeting that enables us to predict budget sizes. Although our versions of the old piecemeal appropriations process and the new budget process with reconciliation are quite stylized, they are nevertheless consistent with many descriptive accounts of old versus new forms of congressional budgeting.<sup>7</sup> Each is a special case of a general theory that is consistent with two intuitions about congressional budgeting. First, in each of our models decision-making occurs sequentially. As we construe it, the piecemeal appropriations process that was in place before 1974 involved the consideration of appropriations requests one at a time with the size of the budget determined ex post by summing the budget outlays granted in the separate appropriations bills. In

contrast, in the budget process with reconciliation, a budget resolution is passed first, thereby setting the size of the budget ex ante, after which appropriations bills are considered sequentially as in the appropriations process, except that the budget constraint is known.

A second key feature of the general theory shared by the two specific models is that actors are sophisticated. Specifically, their votes at any given stage are influenced by others' preferences and by the consequences of the present choice on future choices. For example, in deciding on the first appropriations bill in a session, members will not ignore the fact that appropriating huge sums of money on current appropriations bills will leave less money for subsequent appropriations. Nor will they ignore what other members are likely to do, given their preferences and exercise of foresight.

Ultimately, our theory enables us to predict not only individuals' behavior at given stages of the process but also aggregate outcomes, i.e., the size of the budget and the mix of appropriations to various programs. The theoretical finding contradicts the charges of disillusioned Democrats in 1981 as well as most conventional accounts of the effects of reconciliation.<sup>8</sup> In short, reconciliation does not necessarily lead to smaller budgets than would be produced by a process without reconciliation. Rather, the size of the budget depends on characterizable features of the preferences of legislators.

The General Theory. We assume that there are three dollar-denominated activities with which the legislature is concerned: military spending, domestic spending, and the level of nongovernmental activity. We assume that the resources used in these activities sum to a constant, and we define the budget size (or the size of the public sector) as domestic spending plus military spending. Each potential budgetary decision may therefore be represented as a point in a three-dimensional space.

Each legislator is assumed to have Euclidean preferences (circular indifference curves) over the space of policy alternatives. Thus each member has a most preferred point,  $x^0$ . For any two alternatives,  $y$  and  $z$ , the member prefers  $y$  to  $z$  if and only if the Euclidean distance from  $x^0$  to  $y$  is less than the distance from  $x^0$  to  $z$ . With this assumption about preferences, the members are completely described by their ideal points.

A number of characteristics of this general theory are well known. For example, unless extremely restrictive assumptions are made about the distribution of the ideal points, there will be no pure majority rule equilibrium. However, if choice is restricted to a one-dimensional subset of the space, preferences on this subset will be single-peaked and there will be a unique majority rule equilibrium on that subset. We next consider and illustrate two special cases of the general theory, both of which exploit the foresight of actors which in essence constrains choice to a single dimension.

Model A: The Piecemeal Appropriations Process. Suppose that the legislature makes its allocative decision by breaking the problem into pieces and sequentially deciding on the components, as was characteristic of Congress prior to 1974 reforms. For example, the legislature may decide on the level of military expenditures first and then turn to the question of allocating what is left over between domestic spending and, implicitly, private economic activity. For any particular order of business, the members' votes are determined by their anticipation of what will happen at the subsequent stage(s), given what happens and happened at the current and prior stage(s).

Consider the three member legislature in figure 1 and suppose that member 3 proposes to set military spending at  $m_1$ , which is represented by the horizontal line through his ideal point. Members 1 and 2 examine the implications of an  $m_1$  decision at stage one for the subsequent decision on the domestic dimension. They are repelled by their expectation that at the second and final stage the median point on  $m_1$  will be selected, and they see that a stage one decision of lower military expenditures would bring the outcome closer to their ideal points. Eventually,  $m_2$  (the median of ideal points projected onto the military dimension) will be proposed and accepted at stage one, whereupon the median of the ideal points projected onto  $m_2$  will be selected at stage two. This point is always the intersection of medians, and under an institutional arrangement that permits changes on only one dimension at a time it is an equilibrium,<sup>9</sup> which we shall call the appropriations process equilibrium and henceforth label A.

(figure 1 here)

If each member has circular indifference curves, the appropriations process equilibrium does not depend on the order of consideration of the appropriations bills. This model is a special case of one considered by Kramer (1972) in which he provided sufficient conditions for an equilibrium to be independent of the order of consideration of the bills. Moreover, as Kramer observed, the equilibrium corresponds exactly to a sophisticated voting outcome.<sup>10</sup>

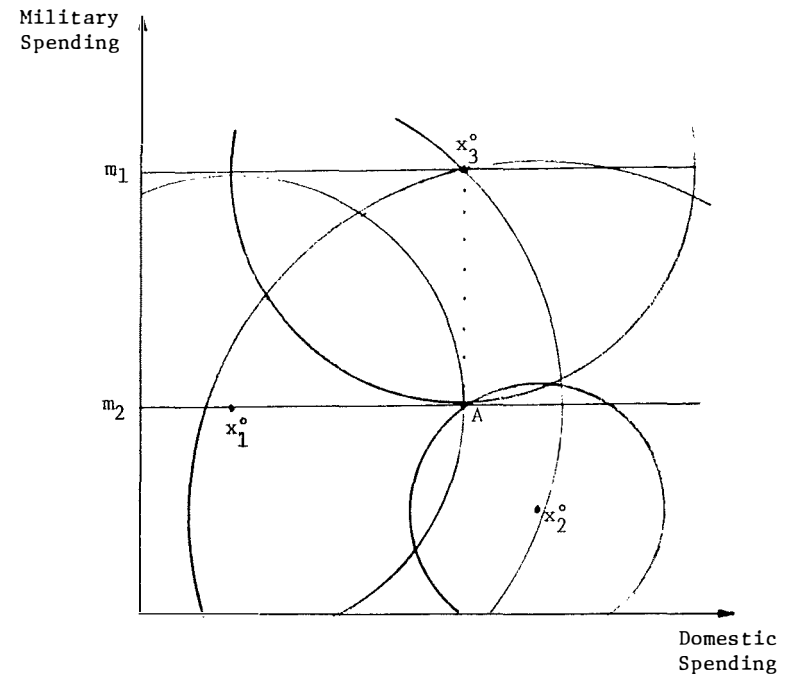
Model B: The Budget Process with Reconciliation. Suppose that instead of considering appropriations bills immediately, members initially take up the question of the size of the budget, after which they decide on the allocation of resources for domestic and military purposes. Given a particular size of the budget (represented by a 45 degree line), the allocation question becomes one-dimensional and therefore has a unique majority rule equilibrium. This allows members to choose the size of the budget, conditioned by their expectations of what mix of military and domestic appropriations will result from different budget sizes. This process is illustrated in figure 2.

(figure 2 here)

The key to showing the existence and finding the location of the budget process equilibrium is that any given budget size has an associated outcome. For example, if  $b_1$  were the budget size selected at stage one, then subsequent decision-making would yield the mix of domestic and military spending represented by  $O_1$ , which is the median

FIGURE 1

Equilibrium in the Piecemeal Appropriations Process







expenditures under the budget process (B) are exceeded by total expenditures under the appropriations process (A). However, when the configuration of ideal points is altered, as in figure 3b, the budget process produces the opposite outcome -- larger expenditures than under the piecemeal appropriations process.

(figure 3 here)

Thus far we have established that not only do institutional arrangements make a difference in budgeting outcomes, but more specifically the difference they make depends on the configuration of preferences of actors. Our ultimate theoretical task is to characterize configurations of preferences that will and will not make reconciliation a budget reducing institutional arrangement. (We continue to focus on two dimensions of expenditure, even though the result is generalizable.)

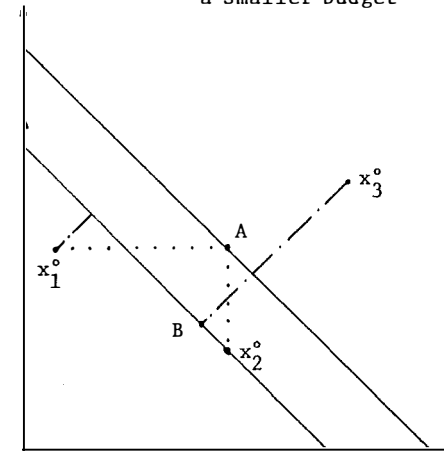
For convenience of exposition, we assume that the legislature is large enough so that the distribution of members' ideal points can be described by a nonatomic probability measure,  $\mu$ , that is absolutely continuous with respect to Lebesgue measure on  $\mathbb{R}^2$ . Then the proportion of ideal points in a set of points,  $X$ , is written  $\mu(X)$ . First normalize expenditures so that the piecemeal appropriations equilibrium (point A) is the origin. Now define the following sets of points that partition the space as illustrated in figure 4.

(figure 4 here)

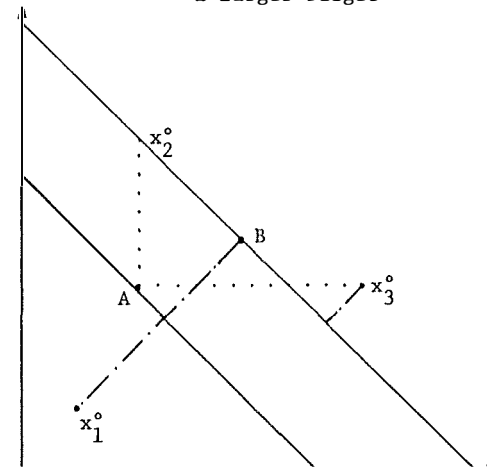
FIGURE 3

# Reconciliation and the Size of the Budget

a. Reconciliation results in a smaller budget



b. Reconciliation results in a larger budget

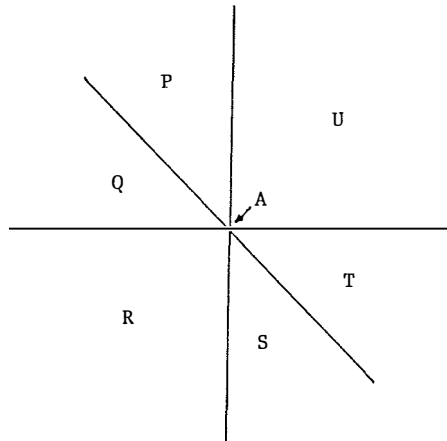


KEY:

- budget lines
- - - projections onto median budget line
- ..... projections of military and domestic medians to point of intersection (A)

FIGURE 4

Regions in the D x M Plane



$$\begin{aligned}
 P &= \{x: x_1 + x_2 \geq 0 \text{ and } x_1 \leq 0\} \\
 Q &= \{x: x_1 + x_2 \leq 0 \text{ and } x_2 \geq 0\} \\
 R &= \{x: x_1 + x_2 \leq 0 \text{ and } x_2 \leq 0\} \\
 S &= \{x: x_1 + x_2 \geq 0 \text{ and } x_1 \geq 0\} \\
 T &= \{x: x_1 + x_2 \geq 0 \text{ and } x_2 \leq 0\} \\
 U &= \{x: x_1 + x_2 \geq 0 \text{ and } x_2 \geq 0\}
 \end{aligned}$$

Since the appropriations process equilibrium is the intersection of medians, and the budget process is the intersection of medians of ideal points that have been projected onto the axes rotated 45 degrees, the following proposition can be easily demonstrated.

Lemma: The budget process equilibrium, B, has a budget size larger than that of the piecemeal appropriations equilibrium, A, if and only if  $\mu(P) + \mu(U) + \mu(T) > 1/2$ .

We now state and prove the necessary and sufficient conditions for the budget process with reconciliation to increase the size of the budget.

Theorem: The budget size of the budget process equilibrium, B, exceeds the budget size of the piecemeal appropriations equilibrium, A, if and only if  $\mu(P) > \mu(S)$  and  $\mu(T) > \mu(Q)$ .

Proof. We begin with an inequality (implied by the lemma) which defines budget-increasing reconciliation, namely,

$$\mu(P) + \mu(U) + \mu(T) > \mu(Q) + \mu(R) + \mu(S). \quad (1)$$

Using the definitions of the regions in figure 4, we show how (1) implies the stated results, (9) and (10) below. Point A, by definition, is the intersection of the median ideal points

projected onto the major axes. Therefore the major axes partition the space as such:

$$\mu(P) + \mu(Q) + \mu(R) = \mu(U) + \mu(T) + \mu(S) = 1/2, \quad (2)$$

and

$$\mu(Q) + \mu(P) + \mu(U) = \mu(R) + \mu(S) + \mu(T) = 1/2. \quad (3)$$

Cancelling out  $\mu(P)$  and  $\mu(Q)$  from the left-hand (and equal) terms of (2) and (3) gives

$$\mu(R) = \mu(U), \quad (4)$$

which, combined with (3), implies

$$\mu(P) + \mu(Q) = \mu(S) + \mu(T). \quad (5)$$

Now, using (4), cancel the terms  $\mu(R)$  and  $\mu(U)$  from (1), leaving

$$\mu(P) + \mu(T) > \mu(Q) + \mu(S). \quad (6)$$

Rearranging (5) gives

$$\mu(Q) = \mu(S) + \mu(T) - \mu(P), \quad (7)$$

which can be substituted into (6), yielding

$$\mu(P) + \mu(T) > \mu(S) + \mu(T) - \mu(P) + \mu(S). \quad (8)$$

Cancellation, rearranging and division by 2 in (8) yields

$$\mu(P) > \mu(S). \quad (9)$$

Finally, (9) and (5) imply

$$\mu(T) > \mu(Q). \quad (10)$$

This proves sufficiency of (1) for (9) and (10). Necessity can be proven by working backward in similar fashion.

Q.E.D.

Figure 4 helps illuminate the political substance that underlies the result. Theoretically, we know that a heavy concentration of ideal points in regions P and T, relative to regions S and Q, respectively, means that reconciliation will have the somewhat counterintuitive effect of increasing the budget. The political translation is necessarily somewhat cumbersome but nonetheless meaningful. Notice first that members in P and T are differentiated from members in S and Q in terms of whether their desires for increases in expenditures in one area exceed their desires for decreases in the other (relative to the origin after normalization). Accordingly, the theorem has the interpretation that implementation of a budget process with strict reconciliation will result in a relatively large budget if and only if the number of strong-hawk/moderate-domestic-conservatives (P) exceeds the number of moderate-domestic-liberal/strong-doves (S), and the number of strong-domestic-liberal/moderate-doves (T) exceeds the number of moderate-hawk/strong-domestic-conservatives (Q). In such circumstances an implicit, mutually beneficial agreement will be made to increase the overall level of spending. Indeed, many explanations of the

persistence of high deficits are consistent with this translation of the formal argument.

Yet our theory is noncooperative. There is no assumption that a backroom bargain takes place that results in relatively high levels of spending under the budget process. The rules of the chambers do not permit members to make binding commitments across votes. Therefore, one cannot generally expect mutually beneficial transactions to be made. Indeed, the fact that there is no pure majority rule equilibrium implies that in the absence of the institutional structure we impose and which induces our equilibrium, there would always be an opportunity for some majority to improve its welfare. Whatever bargains occur must therefore be entirely implicit and must take place in such a fashion that it is in the interest of each party to execute his part of the agreement at the appropriate moment.

#### A TEST OF THE THEORY

An ideal test of the theory would consist of estimating each individual's ideal point in a 16-dimensional space (one dimension for each of the functional categories in the budget resolution),<sup>11</sup> calculating the budget process equilibrium as a 16-tuple dollar values, observing the outcome of the budget process in the form of congressional appropriations, and finally assessing how close the predicted outcome is to the observed outcome. Obviously, this is not possible. A few of the many prohibitive obstacles deserve mention. First, the ideal test requires estimation techniques that have not been developed, namely, the identification of ideal points for each

member, stated in dollar values. Second, the functional categories of the budget resolution do not correspond precisely with the subsequent appropriations measures. Moreover, Congress typically fails to pass at least a few such appropriations bills. And third, since we cannot make Congress repeat the budget processes in a given year under different institutional arrangements, we can test at most one of the models per year, and even then there are no straightforward criteria for determining what a good or close prediction is.

In spite of these difficulties we are unwilling to discard the theory as untestable. Rather, we devise and perform an indirect test which at minimum provides an opportunity to reject the theory. The test exploits the fact that in each year since 1980 the House made an observable choice about the form of its budget process to implement. While the House's menu of institutional arrangements does not include our relatively pure forms (at least not the pure piecemeal appropriations model), it nevertheless includes arrangements that approximate one model or the other. The most straightforward example is 1981, in which the key procedural vote was explicitly about consideration of the Gramm-Latta reconciliation bill under either an open or a closed rule. Though sometimes less explicit, comparable choices in other years were always between rules that had the effect of opening the budget resolution to amendments thereby approximating sequential appropriations, or barring it from amendments in which case the reconciliation provision had a greater chance of being binding. (The Appendix contains a detailed description of the votes.)

Our test, therefore, is an analysis of procedural votes. It consists of three steps: estimation of ideal points in a two-dimensional space, computation of the equilibrium outcomes under the two pure models, and assessment of the degree to which votes on the procedural motion (interpreted as a choice between different institutional arrangements) are consistent with various hypotheses. The votes predicted by our theory require that members behave as if they know and believe the theory. More concretely, individual congressmen know the consequences of the real-world analogues to reconciliation and piecemeal appropriations, and given their expectations about the budget outcomes that would result under each (approximated) procedure, they choose rationally among the procedures. If a member's ideal point is closer to A than to B, the member will oppose the procedure that has the effect of making the budget resolution binding, preferring instead to have the opportunity to make piecemeal changes (via amendments) in expenditure ceilings. If votes are consistent with this hypothesis of rational choice of institutional arrangements, therefore, the model will be supported. In contrast, if competing hypotheses predict as well or better, then we will reject our theory.

As depicted in the theory, the three substantive ingredients represented by ideal points are preferences on domestic policy, defense policy, and overall government spending. Although there is an expanding literature on (and controversies surrounding) measurement of preferences,<sup>12</sup> we proceed with a relatively simple scaling technique

based on three corresponding interest group ratings. First, we define a vector  $x = (x_1, x_2)$  in which the first component is the member's League of Women's Voters score (based primarily on domestic roll call votes), and the second component is the member's National Security Index (reflecting the degree of pro-defense voting as evaluated by the American Security Council). This vector is then scaled as a function of overall anti-spending roll call voting behavior, as measured by the National Taxpayer's Union score. The formula for the ideal point is:

$$x^0 = [1 - (NTU / 200)] x.$$

All scores range from 0-100, thus, for example, the most fiscally conservative members (NTU = 100) are scaled back halfway towards the origin, while NTU's "biggest spenders" who score 0 maintain their original values of  $x_1$  and  $x_2$ .

Given the estimated ideal points, identification of equilibria for the appropriations and budget processes is straightforward. The appropriations process equilibrium (A) is the intersection of medians on the domestic and military dimensions; the budget process equilibrium (B) is the intersection of medians of projected ideal points onto the axes rotated 45 degrees.

We are interested in the relative predictive power of five hypotheses, three of which formally embody individual-level rational choice, and two of which are representative of conventional and relatively informal accounts of congressional budgeting since 1974. The hypotheses are:

1. Rational choice of institutional arrangements. Members consider both the size of the budget and how it is divided. Predictions are determined by the relative distances between a member's ideal point and the institution-associated equilibria, A and B, as determined by  $H_1$  (see figure 5).

(figure 5 here)

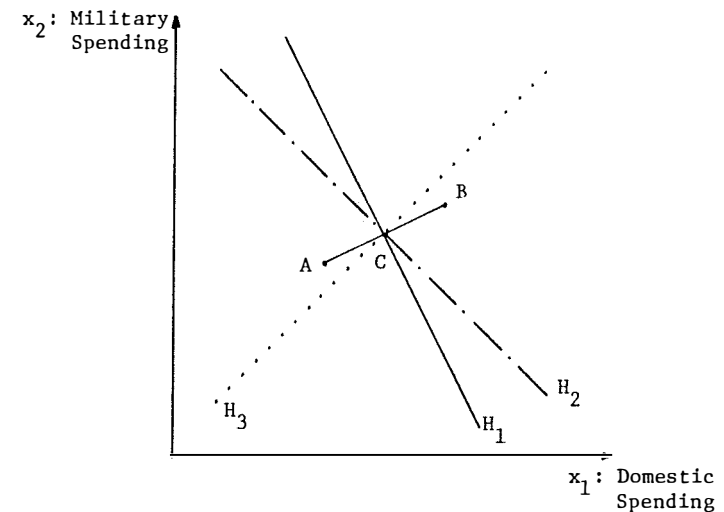
2. Rational choice of budget size (fiscal liberalism-conservatism). A member chooses the institutional arrangement according to his preference on size of the budget (without regard to its division). The separating hyperplane,  $H_2$ , is a 45 degree northwest-to-southeast line passing through point C (which is equidistant from A and B).

3. Rational choice of budget division (guns-versus-butter liberalism-conservatism). A member chooses the institutional arrangement according to his preference on division of the budget, namely high domestic and low military spending versus high military and low domestic spending. Budget size, however, is not taken into account. Hyperplane 3, a 45° southwest-to-northeast line passing through C partitions the set of ideal points and determines this prediction.

4. Conventional wisdom, party. Republicans (assumed to be more fiscally conservative than Democrats) vote for the budget process with reconciliation, which they believe will result in a smaller budget; Democrats do the opposite.

FIGURE 5

Separating Hyperplanes for Hypotheses 1 - 3



5. Conventional wisdom, party and region. Republicans and Southern Democrats (assumed to be more fiscally conservative than non-Southern Democrats) vote for the budget process with reconciliation. Non-Southern Democrats vote for piecemeal appropriations.

Hypotheses 2 and 3 are included as null models, albeit models with some theoretical and spatial foundation. One main empirical question is whether hypothesis 1, which jointly considers questions of budget size and budget division, predicts better than the models in which only size or division is considered. Hypotheses 2 and 3, then, can be viewed as constrained versions of our theory. In contrast, hypotheses 4 and 5, have no explicit spatial or theoretical basis, but have been proffered by observers of recent cycles of congressional budgeting. The relevant comparison here is not hypothesis 4 with 5, but rather hypotheses 4 and 5 with 1. The latter comparison answers the question of whether an explicit theoretical account of how preferences are expressed in a rich institutional context facilitates prediction of congressional behavior and budgetary outcomes.

## RESULTS

Table 1 presents the percentage of votes correctly predicted by each hypothesis in 1980-1983. Overall, hypothesis 1 -- rational choice of institutional arrangements -- predicts best. Next best in overall performance are hypotheses 3 and 2, the restricted versions of our theory. Finally, the hypotheses based on regularities in party

voting and in party-region coalition formation have the worst overall records, dropping below 50 percent for the four-year period. The bottom line, then, supports the generalization that the more information a theory explicitly incorporates about individual preferences, the better it will predict endogenous institutional choices.

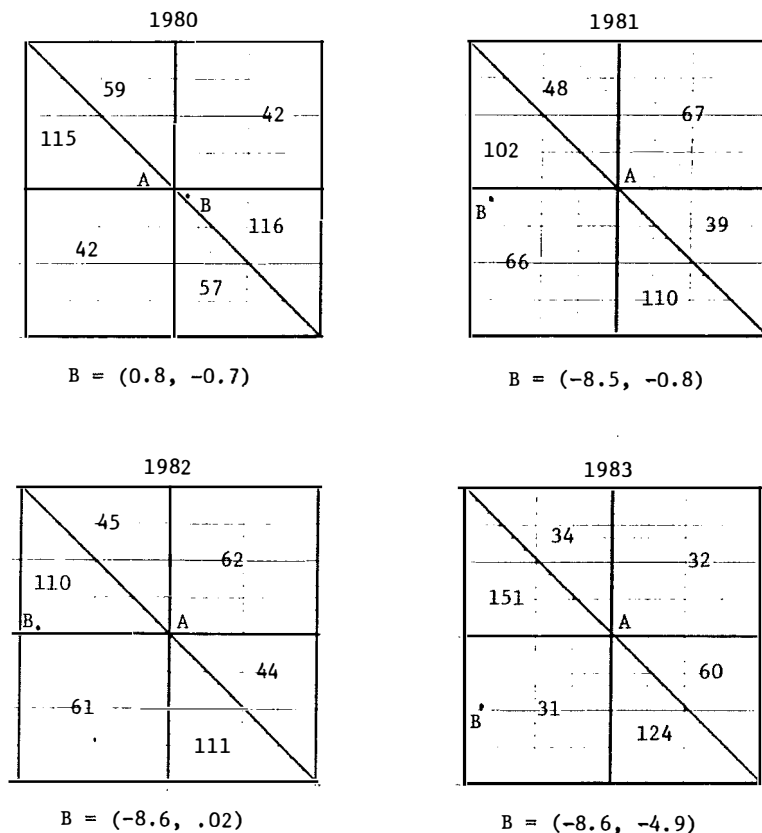
(table 1 here)

But inasmuch as the bottom line fails to convey the whole story, it is useful to look more closely at individual years, as summarized in figure 6. First consider the year in which the conventional wisdom hypotheses perform best and on which (understandably) much of conventional wisdom is based: 1981. Unified Republicans coalesced with fiscally conservative Southern Democrats (Boll Weevils) to adopt the most dramatic reconciliation package in the four-year period. Accordingly, hypotheses 4 and 5 correctly predict a high percentage of the votes -- 93.0 and 85.3, respectively. But inspection of the distribution of preferences in 1981 illustrates three less obvious points. First, consistent with conventional wisdom, ideal points were such that reconciliation resulted in a relatively small budget in 1981. Second, the data and theory suggest that the bulk of the reductions in expenditures should have occurred on the domestic dimension, which indeed they did. And third, although overshadowed by the performance of the party-based conventional wisdom hypothesis, our hypothesis nevertheless scores an impressive 86.7 percent. Thus the conventional wisdom about 1981 appears to have a theoretical basis.



Figure 6

Distribution of Ideal Points  
and Normalized Locations of Equilibria, 1980-83\*



\* The piecemeal appropriations equilibrium (A) is always at the origin (0,0). Numbers denote members whose ideal points were located in the given region.

(slightly) the size of the budget. Consequently, in contrast to 1981 and 1982, hypotheses 4 and 5 predict very poorly (3.8 percent and 20.1 percent). Democrats overwhelmingly favored a budget process with reconciliation in 1980 while Republicans opposed it. Moreover, since the Democrats supporting reconciliation tended to have ideal points in the pro-domestic anti-military regions of the space, our hypothesis and the budget division hypothesis predicted quite well (76.5 and 76.7 percent, respectively). Still, given the closeness of the two equilibria in 1980 and the crudeness of our estimated ideal points, we cannot be too confident of this support.

At this stage in the analysis we expected 1983 to be a uniquely useful if not decisive year for the test. Interpretations of the 1982 election and of the subsequent 1983 budget process made us expect that the configuration of preferences in 1983 would more closely approximate that of 1980 than 1981 and 1982. Democrats gained 26 seats in the 1982 election by running against Reagan's domestic spending cuts. Republicans meanwhile stressed differences between their preferences and Reagan's policies and recession. Moreover, these apparent trends toward restoration of spending persisted into the budget cycle. The House Budget resolution, which called for a \$33 billion increase in domestic spending was dubbed the "Democratic Manifesto," and House Republicans went to extremes not to consider Reagan's budget, which called for further reductions in domestic spending. The Republican strategy was to seek a rule that would have permitted consideration of as many as 15 amendments, a la sequential

appropriations. But the Democrats won the procedural battle in 1983, passing a modified-closed rule. In practice the rule was completely closed since Republicans, not wanting to embarrass Reagan, declined to put forth a substitute.

The Administration was similarly unenthusiastic about its prospects for a repeat performance of reconciliation. The

Congressional Quarterly Almanac called it an "ironic turnabout" that

the Reagan administration displayed growing disenchantment with the [reconciliation] process which the president had used as a vehicle for implementing his economic program in 1981 and 1982. As lawmakers whittled away at Reagan's proposed military spending increase, Defense Secretary Caspar W. Weinberger suggested to the president that the administration might be better off without a congressional budget. That way, Weinberger reasoned, Reagan might be able to get more money for defense in the appropriations process, and he would be able to veto funding bills for other programs if he thought they were too high. (1983, p. 435)<sup>14</sup>

How might these perceptions and events be summarized in terms of the theory? Electoral outcomes suggest movement from S to T (and perhaps from Q to P) in the policy space, while Weinberger's strategy suggests that the old appropriations process would have resulted in greater defense spending than would strict reconciliation. Thus the budget process equilibrium could be expected to be located east-southeast of the appropriations equilibrium -- south if Weinberger's expectation of lower defense spending under the budget process were correct, and be east if the strength of the Democrats were in fact based on a desire for restoration of domestic programs. The corresponding prediction of our theory would be for such Democrats to succeed in using reconciliation to bring about a relative increase in the budget. However, as figure 6 shows, not all such changes were

reflected in the data. Reconciliation indeed seems to have kept military expenditures relatively low (as Weinberger feared), and Democrats definitely supported reconciliation instructions and won on the key vote (see table 1, hypothesis 4). But because the expected easterly shift of B relative to A did not occur, all five hypotheses predict poorly in 1983.

The results from 1983 raise the awkward question of whether the theory or the data are wrong. While ultimately the reader should make such a judgment, presently we cannot deny that our prediction is poor in 1983; we can merely point to assorted electoral facts, legislative strategies, and administrative statements that seem more consistent with our theory than with our data. In contrast, it is not possible to explain away the failure of the conventional wisdom hypotheses in 1983 (or in 1980). Indisputably, Republicans sometimes oppose the new budget process with reconciliation. We are therefore left with one confident and two tentative findings. The confident finding is the considerable direct evidence against hypotheses based on conventional notions of party and region. The tentative findings include some direct evidence for the hypothesis of rational choice of institutional arrangements, and thus some indirect evidence for our institution- and preference-based theory of congressional budgeting.

#### DISCUSSION

The theory of the budget process was developed and tested in the context of a simple two-dimensional policy space (with an implicit third dimension representing nongovernmental activity) and under some

TABLE 1  
Percentage of Votes Correctly Predicted  
by the Five Hypotheses

Year	N	Coordinates of Equilibria:		Hypotheses:*				
		Appropriations	Budget	1.	2.	3.	4.	5.
1980	421	(39.0, 42.8)	(39.7, 42.2)	76.5	62.7	76.7	3.8	20.1
1981	427	(42.4, 54.0)	(33.9, 53.2)	86.7	65.1	78.2	93.0	85.3
1982	417	(43.5, 54.5)	(34.9, 54.5)	69.3	64.3	63.6	77.0	70.5
1983	426	(52.8, 39.2)	(44.2, 34.3)	17.8	34.0	13.1	7.0	18.7
Average				62.6	56.9	57.9	45.2	48.7
Rank				1	3	2	5	4

- \* 1. Rational choice of institutional arrangements  
 2. Rational choice of budget size  
 3. Rational choice of budget division  
 4. Conventional wisdom party  
 5. Conventional wisdom party-region

(figure 6 here)

The situation is similar in 1982. The distribution of ideal points is comparable in 1981 and 1982 as one would expect in the absence of an intervening election. Accordingly, the reconciliation equilibrium (B) again produces a smaller budget than that for piecemeal appropriations (A). Notice, however, that the relative reduction comes at the expense of domestic spending; point B is actually slightly greater on the military dimension. While we are reluctant to make too much of this difference, it nevertheless seems consistent with the final outcome of the 1982 budget process in which defense spending continued to increase significantly in spite of further cuts in domestic spending.<sup>13</sup> Finally, as in 1981 each hypothesis predicts reasonably well, although not as well as in the previous year.

The combined analyses for 1981 and 1982 underscore the difficulties with selecting one hypothesis over another when they yield similar predictions. Such will be the case whenever Republicans are predominantly fiscally conservative, Democrats tend to be bigger spenders, and the condition of the theorem is not met. Thus for a convincing demonstration that our theory is an improvement upon conventional wisdom, it would be useful to observe a year in which the configuration of preferences meets the condition stated in the theorem. 1980 is such a year, although just barely. Here strict reconciliation has the theoretical effect opposite that in 1982: to increase domestic spending, decrease defense spending, and increase

fairly strong assumptions. Our choice of simplicity over complexity was dictated by our strong desire to test the theory, even if only indirectly. In conclusion we note some possible theoretical modifications and then place our results in the context of prior studies of the budget process.

The two assumptions that are perhaps most objectionable are circular preferences and the number of issues. The number of issues under consideration is not essential to the formal argument. We restricted our attention to two issues -- domestic and military spending -- only to facilitate exposition and to maintain a resemblance between the theory and actual congressional budgetary politics. In principle (if not in practice), the theoretical results can be extended and applied to a world with, say, thirteen appropriations bills, in which case the appropriations and budget process equilibria could be derived. Similarly, the distributional conditions for reconciliation resulting in a larger budget could be determined. But the calculations would be more complicated and the conditions for different budget sizes under different institutional arrangements would be difficult to interpret. Furthermore, the argument that members possess good enough information about one another's preferences to behave in fully sophisticated ways would be difficult to sustain.

A second possible theoretical modification would be to relax the assumption on preferences from circularity to strict convexity. Then it would still be true that every one-dimensional subset of the space

has a unique majority rule equilibrium, however the location of the new equilibrium would depend on the order in which appropriations bills arise. This raises two problems. First, because there will be several different order-dependent equilibria under each institution it would not be clear how to assess the effect of changing from one institution to another. Second, if members did not know the order in which the appropriations bills were to be decided, their calculations of voting strategies would not be straightforward. In essence, equilibria would still exist, but in the absence of imposing some additional structure on the problem (such as a specified order of voting on appropriations) it is unlikely that real actors would behave such that the equilibria were obtained.

There are two ways of addressing this situation, although neither is completely satisfactory. We could assume that members knew the order in which bills were considered and that the order is the same with or without the new budget process. But historically the ordering of congressional appropriations bills is erratic. Alternatively, we could assume that members believed that each order was equally likely and that at each stage they calculated the consequences of their decisions accordingly. The consequences of this modification are unclear.

In light of these difficulties, and for the reasons specified in footnote 10, we employed the stronger assumption about preferences rather than positing a known order of voting. Under such conditions the order of consideration of bills is not essential to our principal

theoretical result, namely, that the equilibrium under the budget process with reconciliation is positive with respect to the piecemeal appropriations equilibrium if and only if a majority prefers to move in a budget increasing direction (or, technically, that a majority of members have gradients in P, U, or T, illustrated in figure 4).

While not overwhelming, the empirical support for the theory is reasonably strong, given that the theory is motivated by individuals' preferences and that good measures of such preferences are difficult to devise. Naturally, we invite advocates of various emerging techniques (see footnote 12, *supra*) to reassess our results using the method of their choice. Our choice, as noted earlier, was shaped by our desire for simplicity.

With these qualifications, and insofar as the failure of the conventional wisdom hypotheses is convincing, our contrasting inability to reject the hypothesis derived from our theory must be interpreted as supportive. We hasten to add, however, that by rejecting party- and region-based accounts of voting, we are not maintaining that party and region are unimportant in congressional budgeting. To the contrary, major roll call votes on the floor during the budget process are almost invariably partisan, and significant deviations from partisan votes are often associated with geographic region, especially in the 1980s and in the House. Nevertheless, the temptation to respond to such empirical regularities by embracing party and region as explanations for congressional behavior should be avoided, because in the absence of additional information the

associated predictions are vacuous. In the case of choosing budgetary institutional arrangements, for example, a prediction that a member will vote with his party (or region) says nothing explicit about why he will do so, nor does it say which way other members of his party (or region) will vote. The key points are that the party and region variables are proxies for preferences, and that such preferences -- when combined with member's expectations about how institutions work -- are the real predictors of congressional behavior in the budget process.

Granted, these ideas are not new. Students of electoral behavior are undoubtedly familiar with the argument that the party variable is a proxy for preferences (Page and Jones, 1979; Fiorina, 1981; Rivers, 1981), and more recently the same observation has been transported to the study of congressional budgeting (West, 1985). Similarly, the combined effects of preferences and institutions are increasingly prevalent in two bodies of the congressional literature. Most obvious of these are theoretical studies that have expanded upon Shepsle's (1979) notion of structure-induced equilibria, such as Denzau and Mackay (1983), Krehbiel (1985), Shepsle (1985), and Shepsle and Weingast (1985). But several recent empirical studies, too, are implicitly consistent with the combined effects of preferences and institutions explicitly incorporated into our theory. For example, Brady (1985) and Brady and Morgan (1983) have studied extensively how congressional electoral outcomes are translated into congressional policy outcomes, the key links being changes in members' preferences

and occasional calculated changes in internal institutional features. Similarly, Kiewiet and McCubbins (1985) demonstrate how electoral incentives of congressmen affect budget outcomes. Stewart (1985) examines the effects of institutional decentralization in the appropriations process in the late 19th century, and finds that while changes in institutions alone may not affect outcomes, changes in institutions and preferences can. And Kiewiet and McCubbins (1984) argue that preferences, institutional features and budgetary reversionary points define classes of strategic situations for the president and Congress, whereby superior predictions of appropriations outcomes are possible.

While consistent with several prior studies, this research uniquely introduces a testable individual-level theory of the congressional budget process. To the question of whether a budget process with reconciliation reduces the size of the budget relative to a sequential appropriations process, our theoretical answer -- "not necessarily" -- is ostensibly equivocal. But fortunately the theory has testable implications. If the data are to be believed, then the answer to the parallel empirical question -- whether the budget process in practice has reduced the size of the budget relative to alternative arrangements -- is almost surely "yes" for the early '80s.<sup>15</sup> Perhaps critical observers of the new congressional budget process will doubt such a finding, but rather than pursue it further we prefer to conclude more generally. We are persuaded by, and think we have corroborated, Ellwood's (1984) argument that the effect of

reconciliation on budget sizes is "neutral on its face." But additionally we hope to have demonstrated why the institutional story is not the whole story, neither in theory nor in practice. In practice, the theoretical neutrality of the institution of reconciliation is annually tempered by individual members' preferences. Thus Shepsle's (1979) thesis that preferences and institutions "conspire" to produce structure-induced equilibria takes on a more concrete meaning in the context of the congressional budget process. Preferences of individual congressmen towards spending and their ability to choose institutional arrangements are indeed co-conspirators in budgetary outcomes.

## APPENDIX

## VOTES

In 1980 the key vote (#456) was on the rule that would govern debate on the reconciliation bill, HR 7765. The modified closed rule, HRes 776, would have permitted only "technical amendments" (CQ Almanac, 1980, p. 128). The decisive vote came on Rules Committee Chairman Richard Bolling's motion for the previous question which in effect blocked amendments on the rule (and in turn blocked all controversial amendments from the bill). A yea vote therefore is interpreted as supportive of the budget process in which reconciliation was successfully employed for the first time. Conversely, a nay vote would have resulted in attempts to amend the rule, namely by allowing for greater amendments on the bill to which it pertained. The vote was 250 for and 157 against. (For the data analysis we coded pairs and announcements as if they were votes.)

In preparation for debate on the 1981 reconciliation bill, Democrats wrote a rule for floor debate under which members would vote separately on spending cuts included in the bill (and supported by the Administration). Had it passed, the binding effect of reconciliation clearly would have been undermined, whereas under the procedure favored by the Republicans and conservative Democrats a single up-or-down vote was taken on the Gramm-Latta package. Vote #95 was the main procedural vote (CQ Almanac, 1981, p. 262). The motion was rejected 210-217.

There was no comparable controversy over rules in 1982, although there was a dispute during consideration of the first budget resolution that determined how rigidly the expenditure levels would be enforced. To each of three substitutes to the resolution, Appropriations Committee Chairman Jamie Whitten proposed amendments that called for the removal of deferred enrollment. Deferred enrollment is a provision that requires any appropriation that exceeds the budget ceiling (established by the resolution) to be kept from going to the president. (See Fisher, 1985, pp. 9-10 for a discussion of deferred enrollment.) Whitten's proposed removal of the provision therefore would have made it possible for appropriations to exceed the ceiling established by the resolution, which of course is contrary to a budget process in which the resolution is genuinely binding. Roll call votes were taken on only two of his three amendments, and the analysis reported is of the first vote (#119). A vote against the amendment is interpreted as support for the budget process (CQ Almanac, 1982, pp. 194-95). The amendment was adopted 212-205.

The key procedural vote in 1983 was on the Democratic rule to the first budget resolution (#38). The rule permitted only one, Republican substitute to the Budget Committee's resolution which otherwise was protected from amendments. A vote in favor of the modified closed rule is interpreted as support for the budget process, since the resolution contained provisions for making the spending ceilings of the first resolution binding if a second resolution were not passed. The vote was 230 for and 187 against.

## FOOTNOTES

1. The final votes in the House and Senate were 401-6 and 75-0, respectively.
2. Others are similarly cognizant of this difficulty. See for example Schick (1980), LeLoup (1980), Ellwood (1983), Copeland (1984), Shepsle (1984), and Fisher (1985).
3. At the time, however, this was viewed as a pre-election "deviation". See Reischauer (1984, p. 399).
4. For more detailed histories, see Schick (1981), Miller and Range (1983), Reischauer (1984), Fisher (1985), and Gilmour (1985).
5. Quoted in The New York Times, June 17, 1981, p. A25, and in LeLoup (1982, p. 323).
6. Additional support can be found in Collender (1983) and Gilmour (1985). For a possible dissent -- or at minimum a persuasive argument that the new budget process has loopholes in spite of reconciliation -- see Fisher (1984, 1985).
7. See for example Ellwood's (1983) "fragmented" and "comprehensive" approaches, or Bozeman and Straussman's (1982) "bottom-up" versus "top-down" processes.
8. An important exception is Ellwood (1984) to whose work we shall return in the discussion.

9. Notice that at the equilibrium (A) in figure 1, any proposal in either a horizontal or vertical direction (but not both) will fail to receive a majority of votes.
10. The existence of such equilibria may be proved under much more general circumstances. If the members have strictly convex preferences, then, for any particular and commonly known ordering of bills for consideration, there will be an equilibrium. But since the location of the equilibrium depends on the order of consideration -- something that might not be known by all the members in advance -- the rational calculation of voting strategies by the members is impeded. For that reason we choose to focus on a model with restricted preferences rather than one in which members know the order of consideration of appropriations bills. We return to this assumption in the final section.
11. The number of functional categories has varied over the years. See Fisher (1985), p. 20.
12. See for example, Carson and Oppenheimer (1984), Kalt and Zupan (1984), Kau and Rubin (1979), and Poole (1981).
13. See Congressional Quarterly Almanac (1982, p. 195).
14. See also Reischauer (1984, p. 409) and Fisher (1984, p. 417).



15. Of the possible exceptions, 1983 is questionable and 1980 appears to have been a year in which the budget-increasing effect of reconciliation was minimal.

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